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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/434,314	11/04/1999	PETER J. BLACK	PA000045	3810

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Qualcomm Incorporated  
Patents Department  
5775 Morehouse Drive  
San Diego, CA 92121-1714

EXAMINER

LEE, JOHN J

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/434,314

Applicant(s)

BLACK, PETER J.

Examiner

JOHN J LEE

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 40-96 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 40-96 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Applicant's arguments with respect to claims 40 - 96 have been considered but are moot in view of the new ground(s) of rejection.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 40 – 96** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo (US Patent number 6,526,028) in view of Kondo (US Patent number 6,580,745).

Regarding **claims 40, 49, 59, and 69**, Kondo (028) discloses that a method for performing handoff in a communication system (Fig. 7 and abstract). Kondo (028) teaches that receiving, by a subscriber station (10 in Fig. 7), pilot signals and reverse link power control commands from one or more base stations (20s in Fig. 7) (Fig. 15 and column 30, lines 38 – 50 where teaches base stations transmit a reverse transmission power control information signal and pilot information signal). Kondo (028) teaches that selecting a first base station (20 in Fig. 7), for transmission of forward link data to the subscriber station (10 in Fig. 7) based, at least in part, on energy of the pilot signals received from the one or more base stations (Fig. 7 and column 28, lines 7 – 52 where teaches mobile station determines, as a particular base station, one of the first through the third base

stations based on quality level, power reception level). Kondo (028) also teaches that selectively performing a handoff to the first base station based, at least in part, on whether signals transmitted by the subscriber station are received by the first base station with sufficient energy according to the transmission power information signal and base station information signal received from the first base station (column 30, lines 38 – column 31, lines 48, Fig. 9, 16, and column 8, lines 13 – 43, where teaches the base stations transmit power control information and pilot information to mobile station and mobile station determines a base station based on forward link power and transmits the information, reverse link fading information, to the base station. When base station determines whether or not any propagation error based on the reverse link fading information on the basis of the detected result, the base station transmits the forward transmission signal to the mobile station for performing handoff).

Furthermore, the claimed limitation “one or more base stations” can be interpreted only one base station, which is currently communicating with the mobile station, transmits power control commands and pilot signal to the mobile station as known art and the mobile station does not need handoff because of communicating one base station.

However, Kondo (028) does not specifically teaches the limitation “selectively performing a handoff to the first base station based on whether signals transmitted by the subscriber station are received by the first base station with sufficient energy according to the reverse link power control commands received from the first base station”. However, Kondo (745) teaches the limitation

Art Unit: 2684

“selectively performing a handoff to the first base station based on whether signals transmitted by the subscriber station are received by the first base station with sufficient energy according to the reverse link power control commands received from the first base station” (Fig. 4, 8, 9, column 7, lines 9 – 52, and column 3, lines 4 – 23, where teaches base station transmits the instruction to the reverse link transmission power control bits for determining reverse link interference and if the interference amount is less than allowable value, performs handover to the base station). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Kondo (028) system as taught by Kondo (745), provide the motivation to achieve more reliable handoff performing in mobile communication system.

Regarding **claims 41, 50, 60, and 70**, Kondo (028) discloses that storing information corresponding to the reverse link power control commands received from the one or more base stations (Fig. 8 and column 28, lines 7 – 52).

Regarding **claims 42, 51, 52, 61, 62, and 71**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claim 40. Furthermore, Kondo (028) further discloses that determining whether it is necessary to perform the handoff to the first base station (column 5, lines 27 – 50 and Fig. 7). Kondo (028) teaches that if it is necessary to perform the handoff, determining whether the signals transmitted by the subscriber station are received by the first base station with sufficient energy based, at least in part, on history of the reverse link power control commands received from the first base station (column 30, lines 38 – column 31, lines 48, column 6, lines 19 – 49, and Fig. 9, 16).

Regarding **claims 43, 53, 63, and 72**, Kondo (028) discloses that if the signals transmit by the subscriber station are not received by the first base station with sufficient energy, inhibiting the handoff to the first base station (column 37, lines 1 – 38 and Fig. 16, 30).

Regarding **claims 44, 54, and 64**, Kondo (028) discloses that selecting an alternative base station for transmission of forward link data to the subscriber station (column 38, lines 45 – column 39, lines 8 and Fig. 10, 16).

Regarding **claims 45, 55, 65, and 73**, Kondo (028) discloses that if it is not necessary to perform the handoff, determining whether a base station currently being used for transmission of forward link data to the subscriber station receives signals from the subscriber station with sufficient energy (column 30, lines 38 – column 31, lines 48, Fig. 9, 16, and column 6, lines 19 – 49). Kondo (028) teaches that if the base station currently being used does not receive signals from the subscriber station with sufficient energy, performing a handoff to an alternative base station (column 30, lines 38 – column 31, lines 48, Fig. 9, 16, and column 6, lines 19 – 49).

Regarding **claims 46, 56, and 66**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claim 40. Furthermore, Kondo (028) further discloses that selecting the alternative base station based on reverse link power control commands received from the alternative base station indicating that signals transmitted by the subscriber station are received by the alternative base station with sufficient energy (column 30, lines 38 – column 31, lines 48, Fig. 9, 16, and column 6, lines 19 – 49).

Regarding **claims 47, 57, 67, and 74**, Kondo (028) discloses that transmitting, by the subscriber station, a message indicating identity of the first base station (column 23, lines 24 – 33 and Fig. 7, 15).

Regarding **claims 48, 58, 68, and 75**, Kondo (028) discloses that the message further indicates a requested rate to transmit to the subscriber station (column 26, lines 46 – 53 and Fig. 7, 15).

Regarding **claim 76**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claims 40 and 42.

Regarding **claim 77**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claims 40 and 42.

Regarding **claim 78**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claims 40 and 47.

Regarding **claim 79**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claims 40 and 45.

Regarding **claims 80 and 83**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claims 40 and 41. Furthermore, Kondo (028) further discloses that a processor (107 in Fig. 8), coupled with the memory (115 in Fig. 8), configured to permit a handoff to a selected base station of the one or more base stations according to the reverse link power control commands (Fig. 8 and column 28 – 7 – 52).

Regarding **claims 81 and 85**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claims 40 and 42. Furthermore, Kondo (028) further discloses that the reverse link power control commands requesting the subscriber

station to decrease its transmission energy are indicative that the reverse link signal being received (column 26, lines 46 – 67 and Fig. 15).

Regarding **claims 82 and 86**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claims 40 and 45. Furthermore, Kondo (028) further discloses that the reverse link power control commands requesting the subscriber station to increase its transmission energy are indicative that the reverse link signal is not being received (column 26, lines 46 – 67 and Fig. 15).

Regarding **claim 84**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claims 40 and 42. Furthermore, Kondo (028) further discloses that a plurality of base stations, each base station configured to receive the signal and transmit reverse link power control commands (Fig. 15 and column 30, lines 38 – column 31, lines 48).

Regarding **claim 87**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claims 40 and 42.

Regarding **claim 88**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claims 48 and 80.

Regarding **claim 89**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claims 48 and 80.

Regarding **claims 90 and 94**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claims 40, 42, and 43.

Regarding **claims 91 and 95**, Kondo (028) discloses that receiving from the first base station a message indicating a quality of the received reverse link signal (Fig. 8 and column 28, lines 35 – 52).



Art Unit: 2684

Regarding **claim 92** Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claims 40 and 42. Furthermore, Kondo (028) further discloses that the received reverse link signal is a data request control signal (column 32, lines 34 – 45 and Fig. 20).

Regarding **claim 93**, Kondo (028) discloses that determining the first base station was not selected for transmission of a last frame of data (Fig. 8 and column 28, lines 30 – 52).

Regarding **claim 96**, Kondo (028) and Kondo (745) disclose all the limitation, as discussed in claims 40 and 76.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hamabe (US Patent number 6,731,949) discloses Method of Controlling Transmission Power in a Cellular Type Mobile Communication System.

Chheda et al. (US Patent number 6,515,975) discloses Fast Forward Power Control During Soft Handoff.

Information regarding...Patent Application Information Retrieval (PAIR) system... at 866-217-9197 (toll-free)."

Any response to this action should be mailed to:

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Art Unit: 2684

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6606 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121  
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications  
from the examiner should be directed to **John J. Lee** whose telephone number is  
(703) 306-5936. He can normally be reached Monday-Thursday and alternate  
Fridays from 8:30am-5:00 pm. If attempts to reach the examiner are unsuccessful,  
the examiner's supervisor, **Nay Aung Maung**, can be reached on (703) 308-7745.  
Any inquiry of a general nature or relating to the status of this application should  
be directed to the Group receptionist whose telephone number is (703) 305-4700.

J.L  
July 21, 2004

  
**NICK CORSARO**  
**PATENT EXAMINER**

John J Lee